8. ACTIVATING ELECTRICAL COMPONENTS WITH NEGATIVE (-) VOLTAGE.

8.1 With Probe’s tip make contact with the negative terminal of component. LED should light RED.

8.2. While keeping an eye on the RED LED indicator, quickly press backaward (-), then release the power switch. If the GREEN indicator changed instantly form RED to GREEN you may proceed with further testing. If the GREEN LED went out at that instant, or if the circuit breaker tripped, the Auto Probe has been overloaded. This could have been for the following reasons:

a) Contact is a direct positive Voltage.

b) The component has a short circuit.

c) The component is a high current component i.e. starter motor.

Note: If the circuit breaker tripped, reset it by

9. CHECKING FOR BAD EARTH CONTACT.

9.1 Examine the suspected earth wire or contact by using the probe tip.

9.2. Observe the GREEN LED indicator. If the LED indicator changed from GREEN to RED, this is not a true earth. If the circuit breaker tripped, this circuit is most probably a direct earth. High current components such as starter motors will also trip the circuit breaker.

10. FOLLOWING AND LOCATING SHORT CIRCUITS.

In most cases, a short circuit will be indicated when a fuse blows, or a protection device tripping, (i.e. a circuit breaker). This is the point to commence your investigation.

10.1. Remove the blown fuse from the fuse box.

10.2. With the Auto Probe, energise both contacts in the fuse box. The side which trips the Auto Probe circuit breaker is the side with the short circuit.

10.3. Take note of the wire identification code or colour.

10.4. Follow the wire as far as possible along the wiring harness, (i.e. It the short is in the brake light circuit the wire will pass through the wiring harness at the door sill).

10.5. Locate the colour coded wire in the harness and expose it.

10.6. Probe through the wire’s insulation with the Auto Probe and push the power switch forward to energise the wire. If Probe circuit breaker trips, you have verified the short circuit wire.

10.7. Cut the wire and energise each end with the Auto Probe. The wire which trips the Probe’s circuit breaker again will lead you to the short circuit area.

Follow the wire in the short circuit direction and repeat process until the short is located.

PARTS LIST

<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RT-PRB</td>
<td>Probe steel pin assembly</td>
</tr>
<tr>
<td>2</td>
<td>RT-TBR</td>
<td>Reset device</td>
</tr>
<tr>
<td>3</td>
<td>RT-RSW</td>
<td>Rocker switch</td>
</tr>
<tr>
<td>4</td>
<td>RT-CBP</td>
<td>Battery clamp black</td>
</tr>
<tr>
<td>5</td>
<td>RT-CPR</td>
<td>Battery clamp red</td>
</tr>
<tr>
<td>6</td>
<td>RT-CUC</td>
<td>Crocodile earth clip</td>
</tr>
<tr>
<td>7</td>
<td>RT-HSR</td>
<td>Housing</td>
</tr>
<tr>
<td>8</td>
<td>RT-CAS</td>
<td>Cable assembly complete</td>
</tr>
<tr>
<td>9</td>
<td>RT-BIL</td>
<td>LED</td>
</tr>
</tbody>
</table>

NOTE: It is our policy to continuously improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. IMPORTANT: No liability is accepted for incorrect use of this equipment. WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim. INFORMATION: Call us for a copy of our latest catalogue on 01284 757552 and leave your full name and address including your postcode.

SAFETY INSTRUCTIONS

✓ Observe standard workshop safety procedures when using the Auto probe.

▲ DANGER! - Beware, lead-acid batteries generate explosive gases during normal battery operation. For this reason, it is very important to read and follow these instructions carefully before using the probe.

Keep the work area clean, uncluttered and ensure there is adequate lighting. Keep tools and other items away from the engine, and ensure you can see the battery and working parts of engine clearly.

If the battery terminals are corroded or dirty, clean them before attaching the probe clamps.

Maintain correct balance and footing. Ensure the floor is not slippery and wear non slip shoes.

Remove fl tting clothing. Remove ties, watches, rings, & other loose jewellery. Contain or tie back long hair.

Keep children and unauthorised persons away from the working area.

For jumper lead feature, avoid short circuits & overloading as leads are not protected through probe circuit breaker.

⚠️ WARNING! When activating electrical components with positive (+) Voltage avoid haphazardly applying Voltage to certain circuits as this may damage the vehicles electronic components. You must use the correct schematic and diagnosing procedure while testing.

⚠️ WARNING! When the probe switch is pressed the battery current is conducted directly to the tip of the probe which may cause sparks when connecting earth or certain circuits.

⚠️ WARNING! DO NOT use the probe where there is flammable gasses or liquids (especially petrol and diesel). Batteries fumes are dangerous. Battery fumes can explode when exposed to sparks.

⚠️ WARNING! DO NOT use probe with domestic 110-230Volt supplies. Only used with 6-24Volt systems.

x DO NOT dis-assemble probe. The probe must be checked by qualified service personnel only .

x DO NOT get probe wet or use in damp or wet locations or areas where there is condensation.

x DO NOT use the probe for any purpose other than for which it is designed.

x DO NOT pull the cables or clamps from the battery terminals.

x DO NOT operate the probe if damaged.

When not in use place probe in its case and store in a safe, dry, childproof location.

INTRODUCTION

The Auto probe is the electrical test instrument for reducing the time needed in diagnosing 6 to 24Volt automotive electrical systems. After hook-up of the probe to the vehicle battery, the technician can determine by viewing the RED/GREEN LED indicator, if a circuit is either positive, negative, or open without re-connecting hook-up clips from one battery pole to the other. The Auto probe’s switch allows the technician to conduct a positive or negative current to the tip for testing the function of electrical components without the use of jumping wires. The Probe is fitted with a short-circuit trip device and can be used to locate bad earths instantly and without the need to perform tops up short circuit protected, and will test for bad earth contacts instantly with out performing Voltage drop tests. It allows you to follow and locate short circuits without wasting fuses. The Probe can also test for continuity with the assistance of its negative auxiliary end. With a flip of the power switch you will know at a glance that the Auto Probe is functioning without having to re-connect the probe directly to the battery. The Probe’s long cable allows you to test the complete electrical system of a vehicle without constantly searching for earth hook-ups.

Summary of use:

✓ Test electrical systems without searching for an earthing point.

✓ Tests polarity instantly without re-connecting to earth clip.

✓ Instantly activates electrical components.

✓ Short circuit protected, and quick continuity testing.

✓ Connects short circuits without wasting fuses.

✓ Finds bad earth contact without Voltage drop tests.

✓ Jump lead feature.
OPERATING INSTRUCTIONS

1. HOOK-UP
1.1. Unroll the Auto Probe cable until it is tangle free. Clamp the RED battery hook-up clip to the POSITIVE terminal of the vehicle’s battery.
1.2. Clamp the BLACK battery hook-up clip to the NEGATIVE terminal of the vehicle’s battery.
1.3. Quick Self Test
1.3.1 Rock the power switch forward (+), the LED indicator should light RED.
1.3.2. Rock the power switch rearward (-) the LED indicator should light GREEN.
1.3.3. The Auto Probe is now ready for testing.
Note: If the indicator did not light press the reset button.

2. POLARITY TESTING
2.1. With Probe’s tip make contact with a POSITIVE (+) circuit will light the RED LED indicator.
2.2. With Probe’s tip make contact with a NEGATIVE (-) circuit will light GREEN LED indicator.
2.3. With Probe’s tip contact an OPEN circuit in which case the LED should NOT LIGHT UP.
Note: GREEN = Negative circuit
      RED = Positive circuit.

3. CONTINUITY TESTING
By using the Auto Probe’s tip together with the auxiliary test lead, continuity can be tested on wires and components that are disconnected from the vehicle’s electrical system.
When continuity is present, the LED indicator will light GREEN.
GREEN indicator = Continuity.

4. JUMPER LEAD FEATURE.
The Auto Probe negative battery hook-up lead and auxiliary lead are connected directly through the Auto Probe. By leaving the Probe disconnected from the other electrical parts of the vehicle it can be used as a jump lead.

⚠️ WARNING! When using the Jumper lead feature, avoid short circuits and overloading as leads are not protected through probe circuit breaker.

5. ACTIVATING COMPONENTS REMOVED FROM VEHICLES ELECTRICAL SYSTEM.
5.1. Connect negative auxiliary clip to the negative terminal of the component being tested.
5.2. With Probe’s tip make contact with the positive terminal of the component.
The LED indicator should light GREEN.
5.3. While watching the GREEN LED indicator, quickly push the power switch forward (+) and release. If the GREEN indicator changed instantly from GREEN to RED you may proceed with further testing. If the GREEN indicator went out at that instant, or if the circuit breaker tripped, the Auto Probe has been overloaded. This may be for the following reasons:
a) The contact is a direct earth or negative Voltage.
b) The component has a short circuit.
c) The component is a high amperage component i.e. starter motor.
Note: If the circuit breaker tripped, reset it by pressing the reset button.

6. TESTING TRAILER LIGHTS
With this feature the location and function of trailer lights can be tested.
6.1. Hook the Auto Probe to a good battery.
6.2. Clip the auxiliary clip to the trailer earth.
6.3. Probe the contacts at the jack and apply Voltage to them.
Note: If the circuit breaker tripped, reset it by pressing the reset button.

7. ACTIVATING ELECTRICAL COMPONENTS WITH POSITIVE (+) VOLTAGE.
7.1. With Probe’s tip make contact with the positive terminal of component. LED should be GREEN.
7.2. Whilst watching the GREEN LED, quickly push power switch forward (+), then release. If the GREEN changed instantly to RED you may proceed with further testing. If the GREEN went out at that instant, or if the circuit breaker tripped, the Auto Probe has been overloaded. May be for following reasons:
a) Contact is a direct earth.
b) The component has a short circuit.
c) The component is a high current component, (i.e. starter motor).
Note: If the circuit breaker tripped, reset it by pressing the reset button.

⚠️ WARNING! When activating electrical components with positive (+) Voltage avoid haphazardly applying Voltage to certain circuits as this may damage the vehicles electronic components. You must use the correct schematic and diagnosing procedure while testing.